Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

PO No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	Past Due
PO04/I154	MCM001-VU	1	1	2% 10 Net 30	MDELRIN3.500W	Delrin Round Bar, White R3.500""				3	6/15/2018	3		S081851	Stock	6/18/2018	$ 68.00 / ft	0	
		2			MT-BRASS-C360-R0.500	Brass C360 Round Bar 0.500""				6		6		S081852	Stock	6/18/2018	$ 9.16 / ft	0	
									Total:	9		9							

Plex 6/18/2018 11:17 AM dart Tollis Andrew

McMASTER-CARR®

Packing List

200 Aurora Industrial Pkwy
Aurora OH 44202-8087
330-995-5500
cle.sales@mcmaster.com

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury ON K6A 1K7
Canada

Purchase Order
PO040154

Order Placed By
Chantal Lavoie

McMaster-Carr Number
4799296-01

06/11/2018

Line		Product	Ordered	Shipped
1	**8572K35**	White Delrin Acetal Resin Rod, 3-1/2" Diameter, 3' Length AT	**3 Feet**	3
2	**2572T38**	Ultra-Machinable 360 Brass Rod with Certification, 1/2" Diameter, 6 Feet Long AT	**1 Each**	1

Expected to ship

3	**2572T77**	Ultra-Machinable 360 Brass Rod with Certification, 2-1/2" Diameter, 6 Feet Long	**1 Each**	**1** Jul 2-9

Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
PO040154

Supplier: MCM001-VU
McMaster-Carr Supply Co,
P.O. Box 7690
Chicago, IL 60680-7690 USA
Phone: 330 995 5500
Fax: 330 995 9600

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO040154
PO Date: 6/11/18
Due Date: 7/11/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Lavoie, ChantalPhone: clavoie@dartaero.com
Via: Ground
Pymt Terms: 2% 10 Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1		MDELRINR3.500W AM ✓	8572K35	Delrin Round Bar, White R3.500"	Firmed	6/15/18	3 ft	0 ft 3ft	3 ft	$68.00/ft AM 19/06/18	$204.00
2		MT-BRASS-C360-R0.500 ✓ AM	2572T38 6 FT	Brass C360 Round Bar 0.500"	Firmed	6/15/18	6 ft	0 ft 6ft	6 ft	$9.158333/ft AM 19/06/18	$54.95
3		MT-BRASS-C360-R2.500	2572T77 6FT	Brass C360 Round Bar 2.500"	Firmed	7/22/18	6 ft	0 ft	6 ft	$117.94166/ft	$707.65
4		91030A445	1/pk	Flange Nut receive ea	Firmed	6/15/18	10 Ea	0 Ea	10 Ea	$3.51/Ea	$35.10
5		92620A563	100/pk	Screw receive ea	Firmed	6/15/18	100 Ea	0 Ea	100 Ea	$0.1269/Ea	$12.69
6		98381A508	50/pk	Dowel Pin 3/16" X 3/4" (Mcmaster)	Firmed	6/15/18	50 Ea	0 Ea	50 Ea	$0.156/Ea	$7.80
7		RBE350A91-2381-01-13	5051K271 10 ft	Felt Pad w/ Adhesive Back	Firmed	6/15/18	10 ft	0 ft	10 ft	$7.75/ft	$77.50
8		RBE350A91-2381-01-21	1764A31	Folding Pull Handles	Firmed	6/15/18	8 Ea	0 Ea	8 Ea	$7.20/Ea	$57.60

Items

Line Item	Job	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
10		MBRONZR2.250	8932K54 .54" per lenght	Bronze Round Bar 2.250" : MATERIAL: OIL IMPREGNATED SINTERED BRONZE ROUND BAR AS PER SAE 841 TYPE 1, CLASS A OR AMS 4805 OR ASTM B438 GRADE 1, TYPE 2 OR MIL-B-5687D TYPE 1, GRADE 1 receive ft	Firmed	6/15/18	2.16 ft	0 ft	2 ft	$195.29629/ft	$421.84

Line Item Note 4 pcs of .54" = 2.16 ft

Grand Total: **$1,579.13**

Order Notes

Procurement Quality Clauses
A005 RIGHT OF ENTRY
A016 PERSONNEL QUALIFICATION
A026 CERTIFICATION OF MATERIAL CONFORMANCE
A032 DOCUMENT SPECIAL REQUIREMENTS
A033 STATEMENT OF CONFORMITY/TEST RECORDS FOR NAS, AN and MS FASTENERS
A040 NOTIFICATION OF QUALITY ESCAPE
A041 QUALITY MANAGEMENT SYSTEM
A042 DART NOTIFICATION BY SUPPLIER
A043 RETENTION OF QUALITY DOCUMENTS

A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM

A049 SUPPLIER AWARENESS

CL

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 6/18/18 10:40 AM dart.lavoie.chantal

MUELLER BRASS CO.

LOCATIONS:

2199 LAPEER AVENUE
PORT HURON, MICHIGAN 48060

302 ASHFIELD STREET
BELDING, MICHIGAN 48809

Control No: 1048924

CERTIFIED TEST REPORT

Sold: 00061711
To: COPPER & BRASS SALES
ATTN ACCOUNTS PAYABLE
P O BOX #5116
SOUTHFIELD, MI 48086-5116

Ship: 00059225
To: COPPER & BRASS SALES-
8001 THYSSENKRUPP PARKWAY
NORTHWOOD, OH 43619

Cust PO: 5400402994
Cust Part: CURD00895
Type/Size: ROD RND 0.5000
Cust Spec: ASTM B16/16M-10

MBCo SO: 486911 Ln 130 Cert Lvl: 2
Part Nbr: 3600047 FC
Qty Shpd: 10,693 UM: Lbs
BOL: 50702754 Shpd: 06/03/18

Mechanical Properties			
Lot Number: 1703852	Temp r: H020 1/2 H	CDA Alloy: C36000	
Yield Strength ( )	Tensile Strength ( )	Elongation % in 2 Inches	Hardness

Chemical Analysis (%)									
	Cu	Pb	Fe	Zn					
ASTM B16/16M-10	60.0-63.0	2.5-3.0	0.35 Max	REM					
Lot Number: 1703852	61.3	2.6	0.17	REM.					

TOTAL OTHER ELEMENT MAX: .50

We hereby certify to the chemical and mechanical properties reported herewith and to the fact that they were determined in conformance with the specification noted above or any exceptions to this specification we have granted. We also hereby certify that the material furnished on this order is free from mercury contamination and that no mercury bearing equipment was used in the manufacture of these items.

Melted and Manufactured in USA

Conflict Minerals Compliant

Produced in Compliance with:
EN10204 3.1
EU Directives:
2011/65/EU (RoHS 2 Compliant)
2000/53/EC

By: 06/03/18
James Tremp
Metallurgist

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MDELRJNR3500W

DATE: 18/06/18

PO / BATCH NO.: P0040154 / 508RS1

MATERIAL CERT REC'D: Yes

QUANTITY RECEIVED: 3ft

QUANTITY INSPECTED: 3ft

QUANTITY REJECTED: Ø

THICKNESS ORDERED: 3.5"

THICKNESS RECEIVED: 3.5"

SHEET SIZE ORDERED: —

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	P0040154
CORRECT MATERIAL IDENTFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: AT DAB 8 9:30	SIGNED OFF BY:
DATE: 18/06/18	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL : DELRIN II 150E OR ACETRON GP ACETAL

PART NUMBER : M-DELRIN-R D.DDD | X | B

DIA | COLOR CODE

WHERE D.DDD = DIAMETER IN INCHES

B X = COLOR CODE, "W" = WHITE, OMITTED = BLACK

EG. 1" BLACK ROUND BAR = M-DELRIN-R1.000

2" WHITE ROUND BAR = M-DELRIN-R2.000W

RELEASED

2018 MAR 27

ECN 18-657

REV.	DESCRIPTION	BY	DATE
B	UPDATE DRAWING TO CURRENT STANDARDS, ADD MATERIAL COLOR "WHITE". ADD REASON CIR-110. ADD "ACETRON GP ACETAL" AS OPTION (REV. A1).	SAD	17.10.19
A	NEW ISSUE	DS	01.11.12

APPROVED

DESIGN	SAD	DART AEROSPACE LTD
DRAWN	SAD	HAWKESBURY, ONTARIO, CANADA
CHECKED	RF	DRAWING NO. M-DELRIN-R — REV. B
MFG. APPR.	RA	SHEET 1 OF 1
APPROVED	HS	TITLE DELRIN ROUND BAR — SCALE NTS
DE APPR.	CP	
DATE	17.10.19	

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: MT-BRASS-C360-R0.500 PO / BATCH NO.: P0040154/5081852

DATE: 18/06/18

MATERIAL CERT REC'D: Yes

QUANTITY RECEIVED: 6ft

QUANTITY INSPECTED: 6ft

QUANTITY REJECTED: Ø

THICKNESS ORDERED: 0.5"

THICKNESS RECEIVED: 0.5"

SHEET SIZE ORDERED: —

SHEET SIZE RECEIVED: —

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	N	
CORRECT FINISH	Y	N	
CORROSION	Y	N	
CORRECT GRAIN DIRECTION	Y	N	
CORRECT MATERIAL PER M-DRAWING	Y	N	
CORRECT THICKNESS	Y	N	
PHOTO REQUIRED	Y	N	
CORRECT REF # TO LINK CERT	Y	N	P0040154
CORRECT MATERIAL IDENTFICATION	Y	N	
CORRECT M# ON THE MATERIAL	Y	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK.
RECORD RESULTS BELOW

	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: AT DAS	SIGNED OFF BY:
DATE: 18/06/18	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

REV.	DESCRIPTION	ECN #	DATE	BY	APPROVED
A	NEW ISSUE	17-732	17.11.22	VM	WM

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL:	C360 BRASS
SPECIFICATION:	ASTM B16
PART NUMBER:	MT-BRASS-C360-R-[D.DDD]
	WHERE D.DDD IS DIAMETER IN INCHES
EXAMPLE:	MT-BRASS-C360-R-0.250
	TOLERANCES PER MANUFACTURER SPECIFICATIONS

DART AEROSPACE Hawkesbury, Ontario, Canada

TITLE: BRASS C360 ROUND BAR

DWG NO.: MT-BRASS-C360-R REV: A

DESIGN BY:	VM 11/1/2017	.XXX ± .005	FRACTIONS ± 1/8
DRAWN BY:	VM 11/01/2017	.XX ± .01	ANGLES ±.5°
CHECKED:	SAC 11/06/2017	.X ± .1	SURFACES ≈ 125
MFG. APPR:	DP 11/10/2017	1. DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED	
APPROVED:	WM 11/21/2017	2. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
DATE:	11/1/2017	3. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE: NTS	WEIGHT: N/A LBS	SHEET 1 OF 1	

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